

Recreational Vehicles & Child Occupants

Guidelines & recommendations to provide to parents

California Department of Public Health Vehicle Occupancy Safety Program (VOSP) Teleconference, June 19, 2015



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Overview

- RV Facts & Demographics
- Classes of RV's
- Federal Motor Vehicle Safety Standard 208
- Seat Belt Construction in RV's
- RV Crash Testing Status
- Injury Risks Among Rear Seated Passengers
- Guidelines for Parents
- Educational Materials for Parents

RV Facts, Demographics & Crash Data

FACTS & DEMOGRAPHICS*

- Nationwide 30 million RV enthusiasts (including renters)
- RV ownership 8.9 million households
- Average age 48 years
- Largest increase of age category ages 35-54
- > 39% of RV'rs have children under the age of 18 living at home

RV CRASH INJURY ESTIMATES**

- Hospitalization & fatality data limited
- > 75,000 hospitalizations per year

*Recreational Vehicle Industry Association (RVIA)

**Federal Motor Carrier Safety Administration (FMCSA)

Classes of RV's



Class A





Class A







- Largest of motor homes
- Built on a bus chassis (not required to meet bus occupant safety standards for rear seating)
- Weigh 15,000-30,000 pounds (not required to meet Federal seat belt standards for rear occupants)

Class B





- > Van conversions
- Weight 6,000-8,000 pounds
- ➤ Required to meet Federal seat belt standard for front occupants and passenger testing but not for rear occupants for this weight class.
- Some manufacturers meet Federal standards and do independent testing.

Class C







- Constructed on a van chassis
- Weight 10,000-12,000 pounds
- Required to meet Federal seat
 belt standards for front
 occupants only. But not for rear
 occupants

Federal Motor Vehicle Safety Standards & Regulations

(Title 49, Code of Federal Regulations, Part 571)

Standard No. 208 - Occupant Crash Protection Standard:

- > Type 1 (lap-belt only) or Type 2 (lap-shoulder belt)
- Performance requirements for anthropomorphic test dummies
- ➤ Passenger Cars, Multipurpose Passenger Vehicles, Trucks and Buses with a gross vehicle weight rating of 4,536 kg (10,000 lbs.) or less, and buses (driver's seat only)
 - > EXCLUDES (Class A and C RV's) due to exceeding 10,000 lbs.

Federal Motor Vehicle Safety Standards & Regulations

(Title 49, Code of Federal Regulations, Part 571)

Standard No. 208 - Occupant Crash Protection Standard:

- > Specifically for "Motor Homes" (Recreational Vehicles)²
 - 1. Rear designated seats in motor homes are excluded from the rear lap/shoulder belt requirements
 - 2. The rear seats in LTVs (Light Truck and Vans) carrying chassismount campers with a weight greater than 3,855 kg (8,500 lbs.) and no greater than 4,536 kg (10,000 lbs.) would need to be equipped with a lap belt only (front driver and passenger seat only)
 - Usually excludes (Class B van conversions 6-8,000 lbs.)



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Rear Seat Belt Construction in RV's

- Older RV's seat belts anchored to wooden joists
- > Currently:
 - Anchored to vehicle chassis (frame)

RV Crash Testing Status

> NHTSA does not crash test RV's (except Class B in 1970's)



Roadtrech Motorhomes, Inc.

- Class B
- United States
- Adult passengers
- Not child occupant or CSR's



Bailey RV Crash Test (U.K.)

Bailey Motorhomes

- Class C
- United Kingdom
- Adult & child passengers in seat belts
- ➤ Not CSR's

Bailey Crash Tests



VIDEO 1:

https://www.youtube.com/watch?v=1iKwg2672UM



VIDEO 2:

https://www.youtube.com/watch?v=fcJHM9uacA0

RV Crash Outcomes

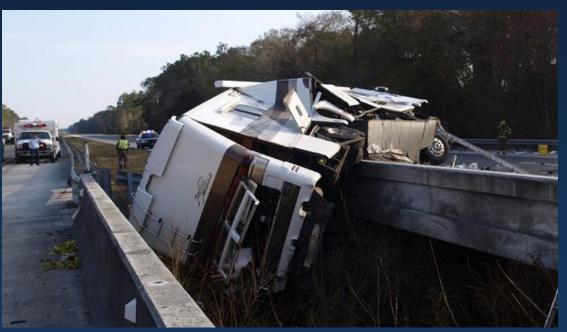








- > Class A
- > Tire blowout
- ➤ Hit guardrail & overturned





- Class A
- Early morning loss of control & overturned





- Class A
- ► Loss of control



- Class B
- Loss of control





OVERVIEW Injury Risks Rear-Seated RV Passengers

- 1. RV's are *not required* to have:
 - Rear occupant crash testing or
 - Meet Federal seat belt standard 208 for rear seating Rear bench seats that have seat belts are anchored either directly onto steel frame of the vehicle or on a steel bar anchored to the RV chassis
 - During a collision, the wooden bench supports could collapse
- 3. Kitchen equipment and cabinets even when anchored onto the steel frame of the vehicle, during a collision, increases the risk of collapsing or becoming a projectile.
- 4. Storage supplies can also become projectiles

Guidelines for Parents

Three alternatives to consider
Before traveling with a child in an RV





1. Best Alternative

Rent or purchase a non-motorized, tow-able RV", so the child can ride safely while properly restrained in a passenger vehicle that is pulling the RV.

- Ensure driver is experienced and familiar with towing a trailer
- Reminder: High-profile vehicles are restricted in high winds, inclines, braking, and have risks making sharp turns and backing



Fifth Wheel







Trailer

Tent Trailer

Truck Camper



2. Second Best Alternative

Drive with the child properly restrained in a passenger vehicle and follow the RV









Class A Class B Class C



3. Least Best Alternative

For those with a personal RV, have custom captain chairs that comply with Federal seat belt standards installed*

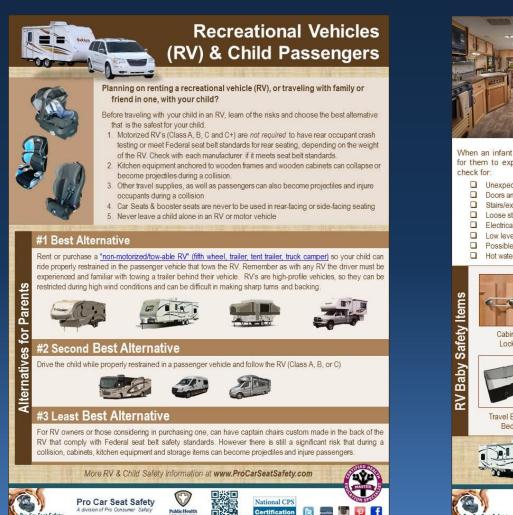
- ➤ Risk of cabinets and kitchen equipment anchored into the wooden flooring and joists which can break apart during a collision
- Other storage items becoming projectiles

^{*}Never install a car seat or booster seat on a rearward- or sidefacing RV seat

Reminder to Parents

- RV's are not crash tested
- Rear RV seating-not required to meet Federal seat belt requirements
- If choose an A,B or C Class, never install a car seat or booster seat on a rearward' or side-facing RV seat
- During a crash:
 - Even when belted, seat benches can collapse
 - Kitchen equipment & cabinets can become projectiles
- Other safety tips:
 - Never leave a child alone in an RV
 - Risks-infants & toddlers (falls, burns, suffocation, poisoning, etc.)

Materials for Parents





Never leave a child alone in an RV

More RV & Child Safety at www.ProCarSeatSafety.com



Pro Car Seat Safety



Contact

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